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A COURSE OF CLINICAL LECTURES,

Delivered at the Hôtel Dieu, Paris, for the Session 1842-'43.

BY A. F. CHOMEL, M. D.

LECTURE III.

CASE I.—*Phthisis, complicated with ascites and œdema of the lower extremities—Anatomical lesions corresponding to these phenomena.*

GENTLEMEN:—At no. 33 of the Salle St. Bernard I have called your attention several times to a woman with all the symptoms of advanced phthisis. I shall not now dwell upon the symptoms of this affection, which offer nothing in this instance worthy of note; but call your attention to the complications which existed in this patient, and which are rare in this disease—the œdematous swelling of the lower extremities, with ascites. Now you meet very rarely with these phenomena in phthisical patients, and hence it is interesting to inquire into the causes of these symptoms. Let us first examine into the ordinary causes of ascites.

Ascites depends on some material lesion of some one of the abdominal organs rather than upon any general cause, as obstruction in the venous circulation, or a state of general anemia. The most common cause of peritoneal ascites is an organic affection of the liver, as cirrhosis, for example. Now this affection rarely exists in tuberculous patients. It is true that tuberculous disease itself may produce serous effusion in the peritoneal cavity; the tubercles exist in the mesentery becoming developed, compress the vessels which lie along the vertebral column, and by impeding the abdominal circulation, produce ascites. There is also an affection of the liver found frequently in phthisis, and which can exercise a certain influence in the production of the phenomena we are analyzing—I mean the *fatty liver*. The ascites and œdema in this case may have been due to the existence of mesenteric tubercles compressing the large abdominal vessels, or to the fatty liver peculiar to phthisis, or to both these causes united. In regard to the other alteration of the liver, called cirrhosis, we might also suspect its existence, but it is extremely rare in phthisical patients. There was also in this patient absence of diarrhœa, another peculiarity very rare in advanced phthisis. Now, all these symptoms are worthy of your attention. Having now briefly recapitulated the phenomena, I shall proceed to the explication of the precise cause of the rare morbid phenomena we have noticed, which the autopsic examination has enabled us to do, the patient having died since our last visit. Among the possible causes of these two results, I mentioned the compression of the vessels by tubercles in the mesentery. At the autopsy we found the femoral veins, and the clot of recent organization; it was probably formed about a week before death. This lesion explains only the anasarca. For the ascites we supposed the probability of the existence of the fatty degeneration of the liver, or the possibility of cirrhosis, this latter, however, seeming to us as very doubtful. On examination after death we found the liver firm, consistent, but small, shrivelled, and a little rough on the surface; in cutting it we found the tissue compact, less thick, but more resisting than ordinary, and grating under the scalpel; an attentive examination showed us on the surface several yellow points, and about the biliary ducts the tissue was of a yellow colour, which is characteristic of cirrhosis. There was the commencement of this affection; and it is very probable that it was the real cause of the ascites observed during life. It is very true that cirrhosis was very little advanced in this patient, but it was sufficiently characterized to induce us to consider it as the true and only cause of the ascites. We found nothing in the veins, and besides any alteration in them does not in general produce ascites till a remoter period. We found, too, in this patient some hypertrophy of the right ventricle of the heart, which no doubt aided to produce the œdema of the lower extremities. The absence of diarrhœa, which is generally so common a symptom in the last stage of phthisis, can be explained by the non-existence of those intestinal lesions usually met with in phthisis. In our patient there were not only no ulcers in the intestines, but there was no inflammation or redness present, another additional peculiarity of interest in this case.

CASE II.—*Pleurodynia—Necessity of combatting promptly and energetically pleurodynic pains in order to avoid consecutive pleuritic symptoms.*—At No. 21 of the Salle St. Agnes, is a young man, of twenty-three years of age, of a strong constitution, and a tailor by trade. In the midst of excellent health he was suddenly seized, about ten days since, with violent pain just below the right nipple, so severe as to oblige him to relinquish his work. On the next day (Dec. 1.) in spite of the persistence of these pains he resumed his occupation, but was unable to support for any time the fatigue of work, and having in vain struggled against them for three or four days, he finally decided on entering the hospital.

Questioned as to his having been exposed to the influence of cold; if he inhabited a cold, damp room, or if by accident he had slept with his windows open; he has answered in the negative on all points. He assures us, moreover, that he has made no effort, that he has not overworked himself, that he has committed no excess in diet, and that he has received no blow on the chest. It was important to insist on all these details, in order that we might be enlightened with regard to the etiology of the disease which presented itself in the form and with the appearance of rheumatism. The patient, besides, has had no fever. There is some diminution of appetite, and some constipation; this latter symptom is due perhaps to the decrease in diet. The patient suffered from no chill at the debut; the heat of the skin is natural; the pulse is about sixty; no headache; nothing anormal in the digestive apparatus. The pain in the side is fixed upon the point just indicated; it is increased by the slightest movement, as walking,

coughing, blowing the nose, &c. Walking is followed by some degree of dyspnœa, but it seems to be caused by the fear of increasing the pain, in indulging in too deep respiration. Besides neither percussion or auscultation reveal anything anormal in the respiratory sound, the seat of pain, except a slight dimunition in the force, which ought to be attributed to the circumstance which I have just noticed. When the skin is pinched, when you raise it up, or when you press upon the seat of pain, there is increase of pain; this excess of sensibility is not in the skin itself, but in the subjacent tissue. It is easy by these symptoms to recognise a rheumatismal affection of the pectoral muscles of the right side, or in other words a pleurodynia.

At first sight you may regard this affection as but of small importance, and of little gravity, more particularly as the patient states that he has never previously suffered from any rheumatismal symptoms, and that his family has been equally exempt. However, in spite of the apparent benignity, rheumatismal pains of the chest merit all our attention. If they persist for any time, they are almost invariably followed by pleurisy, with effusion in the side corresponding with the pain. Sometimes the effusion forms, by degrees almost insensibly, without any evident precursory symptoms, and without the knowledge either of the patient, and often of the physician. It very often happens that the medical attendant having ausculted a patient at the commencement of pleurodynic symptoms, without finding anything anormal, and, not thinking to repeat his exploration, is surprised to find some time subsequently his patient suffering from dyspnœa, with impeded respiration, and, on examining him again, to discover a considerable pleuritic effusion. This should make you frequently examine the chest of patients thus affected, in order to be averted of the consecutive lesions that may follow.

The production of serous effusions in the pleura from rheumatism of the thorax, bears a strong analogy to the serous effusions in the cynovial membranes and the articulations, in consequence of articular rheumatism, as in the knee and elbow, for example. These two kinds of effusion are governed, by all appearances, by the same law. Do not therefore neglect pleurodynic pains, especially when they last any time; treat them on the contrary with care, promptly, and with energy, according to the state of the case.

There is another kind of pleurodynia accompanied with fever. In this case we are sure of consecutive pleurisy and effusion. Then, above all, it is important not to be beguiled into dangerous inaction. You must act energetically, bleed largely and repeatedly, according to the strength of your patient, and the intensity of the symptoms, for, I repeat, without this you expose your patient to dangerous accidents.

In the present case, although there is no fever, yet as the pain is so acute, and as it shows a disposition to increase rather than diminish, I shall apply a number of scarified cups to the right side, over the seat of pain. Generally this treatment succeeds very well; should it not afford relief, we shall have recourse to a blister, and other suitable means.

Paris, Dec. 1842.

UNIVERSITY OF PENNSYLVANIA.

By the Annual Catalogue just issued we find that the number of matriculants is three hundred and fifty-eight.

A NEW OPERATION
FOR THE
CURE OF VARICOCELE.

BY J. PANCOAST, M. D.,

Professor of Anatomy in Jefferson Medical College of Philadelphia, Lecturer on Clinical Surgery, &c.

To Dr. Clymer:—

My Dear Sir,—I send, at your request, the following account of a method which I have twice employed with success for the cure of the varicose enlargement of the veins of the spermatic cord and scrotum, known under the names of cirsocèle and varicocele.

Previous to the operation, the patient is to be directed to walk about for an hour or two with the scrotum unsupported, so as to cause an accumulation of blood in the enlarged veins. He is to be seated on the side of his bed, with the legs separated. The thumb and forefinger of the left hand are then to be pressed in so as to lift up the enlarged veins, and thus separate them from the vas deferens. This duct is readily distinguished by its hard and wiry feel, and is to be pressed off with the nail of the left forefinger towards the os pubis. A long, round lancet-pointed needle, curved near the point, like that of the sail-makers', threaded with a piece of fine but strong hempen twine passed double through the eye, is then to be carried between the bundle of veins and the vas deferens; entering it on the side of the thumb, and bringing out the point against the pulpy portion of the finger. The loop of the double ligature is to be detached from the needle; the ligature being left in the track of the wound. The needle, without being threaded, is again to be entered through the same orifice of the skin as before, but carried this time between the skin of the scrotum and the veins of the cord, and its point brought out through the other puncture made in the skin on the side next the pubis. To facilitate this step, the skin should be lightly raised up from above the veins with the thumb and finger. If there is any enlargement of the subcutaneous veins of the *front part of the scrotum*, as there was in one of my cases, I carry the point of the needle so as to scrape the under surface of the skin, and get it in front of these veins. The needle is now to be left in the wound. I manage to have the place of entry of the needle lower than its point of exit; so that the point of the instrument, which should be pushed well through, may lay undisturbed, without pressing over the root of the penis. The course of the instrument across the cord will be, therefore, rather diagonal than transverse. The loop of the ligature (which lies next the pubis) is now to be thrown over the point of the needle. Traction is next to be made upon the other side, upon the loose ends of the ligature, so as to draw the loop along the needle, through the orifice in the skin. One tail of the ligature is now to be drawn out for four inches, so as to shift the portion of the thread, forming the loop over the needle, for fear that this might have been cut by the point or edge of the needle, so as to break when subsequently knotted. The loose ends of the ligature are then to be drawn tight, and tied with a single knot over the shank of the needle; this is to be drawn as tight as possible, so as to completely strangulate the veins of the cord, which will be thus enclosed by the double ligature on its back part, and the needle in front. To make the strangulation more effectual, the two ends of the loop thus formed over the needle may be slid towards each

other, by pressure through the skin, and the knot again tightened. Severe pain follows this step, which gradually diminishes, and at the end of half an hour ceases almost entirely. To be able to tighten the ligature again at the end of two or three days, when it will be found loosened by having partially cut through the compressed mass of veins, I slide an oblong piece of sole leather, pierced in the centre and notched at the ends, over the heel of the needle, and make a firm double bow knot of the ligature above it. The point of the needle is to be sheathed in a small cork, and a compress placed below it to prevent its worrying the skin. A piece of thick tape is to be passed through the eye of the needle and knotted, in order to prevent it when it has become loosened by suppuration, from being pressed through the hole in the leather, by the movements of the thigh, so as to loosen the loop. The scrotum is to be slightly supported by a couple of silk handkerchiefs, folded, and placed below it. No dressing is required. If neuralgic pains arise, they are to be soothed by hot fomentations, and the administration of anodynes. I untie the ligature over the leather every third day for three successive periods, tightening it as much as possible each time. On the eleventh I remove the needle; the loop, which is then left detached, and has become very small from the successive tightenings, is at the same time withdrawn. Above the place of the ligature, the condition of the cord at this time appears perfectly natural; below it there is a hardened mass of the size of a walnut, formed by the effusion of lymph, between, and in all probability in the cavities of the veins so as to obliterate them entirely. The pain attending this process of cure is but trifling, except at the periods when the loop is tightened. There is no injury done to the integument, such as to leave a scar after the cure is completed, for the needle, if introduced in the manner I have mentioned, lays so completely at rest, as to cut but very slightly at the places of puncture, and as it makes no pressure in the downward direction, cannot by any possibility impair the integrity of the vas deferens. After the withdrawal of the needle, a light poultice may be laid for a few days over the part, to promote suppuration from the points of puncture, and to facilitate the resolution of the tumour left, a result which is quickly effected.

The advantages of this method of operation will, I think, be found sufficient to recommend it to the notice of practitioners. The plan of cure recommended by Sir A. Cooper, which involves the excision of a part of the scrotum, is severe, dangerous, and inefficacious. The methods of Breschet and Ricord are complicated by the use of a cumbersome apparatus. That of Reynaud is attended with a division of the integuments, which leaves, like the three former, a permanent cicatrix, and the modification of this, as suggested by M. Vidal, appears by no means free from objections.

The two latter I have, however, successfully employed, but the treatment of the cases have been necessarily longer, and attended by a much greater amount of suffering. In one instance, after treatment by Ricord's method, an enlargement of the veins subsequently reappeared.

By the method which I have proposed, it is possible at any moment, in case the strangulation of the veins and nerves of the cord should give rise to obstinate neuralgic pains or retention of urine, to relieve the patient by slackening temporarily the ligature, and to shorten the period of treatment by removing the ligature, when the effusion of lymph has completely obliterated the diseased veins, without waiting for it to cut entirely through the enclosed parts. But should it be deemed necessary in certain extreme cases to have this division effected, thereby to more completely prevent the disposition to return of the disease, as when the effusion of lymph did not seem sufficiently abundant, we can accomplish the result the more readily by this method, which gives us the power to tighten the loop from time to time, in proportion as it becomes loosened.

By keeping the cavity of the veins in the grasp of the ligature thus *constantly* closed, the risk of purulent absorption from the veins below is greatly diminished, if not entirely removed; for the constituents of the cord above the site of the operation are scarcely at all affected. The details of the operation are given for the left side, for it is upon that, almost exclusively, that the disease is found to exist, in consequence, it is most probable, of the entry of the left spermatic veins into the emulgent at a right angle to the course of the latter; while those of the right open into the vena cava nearly parallel with the course of that vessel.

Yours, very sincerely.

J. Pancoast.

Philadelphia, Feb. 28, 1843.

CLINICAL LECTURES AND REPORTS.

WILLS' HOSPITAL.

CLINIC OF DR. ISAAC PARRISH.

[Reported by George H. Burwell, Resident Physician.]

Jan. 25, 1843.

Case I.—*Scrofulous Conjunctivitis—ulcers of the cornea—photophobia, &c.*—Jan. 25, James McIntosh, aged 16 months, was presented by his parents for advice, on account of a severe attack of scrofulous conjunctivitis. They stated, that about Christmas, the child "took cold" which fell into the left eye: at the end of a week the right eye was attacked. The eyes have been much inflamed since that time, with intolerance of light, and lachrymation. There is a vesico-pustular eruption about the eyelids and cheek. The child is fretful and feverish, sleeps but little, and is cutting several large molar teeth. The bowels are constipated, and the discharges small, slimy, and greenish.

The general aspect of the infant is strumous. No regular course of treatment has been pursued in this case—the parents have relied mainly upon the advice of their friends in using washes, drops, &c.

℞. Calomel, grs. iv.
Pulv. Ipecac. gr. j.

Mft. pulv. No. ij. One to be taken to-night, and the other on the night of the 27th, to be followed each morning by a small table spoonful of Syrup Rhei.

℞. Sol. Nitrat. Argent, grs. ij.
to ℥j. of water.

Apply a few drops to each eye every morning.

January 28. Much improved, will permit the eyes to be examined without resistance; photophobia slight; appetite better; sleeps better than for some weeks past; the medicine has operated freely; the discharges were first green and slimy, to-day quite yellow and natural.

℞. Sulph. Quininæ, grs. viij.
Elix. Vitriol, gtt. viij.
Syrup Sarsap. comp. f.℥ij.

Take a teaspoonful three time daily; give a tepid salt bath, twice a week, and continue drops to the eyes.

February 1st. Is still improving; general health better; scarcely any intolerance of light. Continue treatment, and keep the bowels open with syrup of rhubarb; weak animal broth once a day, in addition to milk diet.

This case offers a fine example of the disease known as scrofulous conjunctivitis, and may be taken as a sample of a class very numerous in practice. A class which constitutes a large proportion of the cases of ophthalmia occurring in childhood. Mackenzie rates the number as high as 90 out of 100—that is out of 100 children who may be affected with inflammation of the eyes, 90 will present the strumous character. I do not know whether the statistics of this house would justify so high a ratio, but speaking from a general impression, I should think they would. The disease is marked by several striking features, to which I would call your attention.

In the first place we perceive the external marks of the scrofulous diathesis, strikingly depicted The infant has a pallid and bloated countenance, light hair, tumid upper lip, and large abdomen, with disordered bowels; the skin is flabby and inactive, the extremities are apt to be cold, and the chain of absorbent glands along the sides of the neck are hard and enlarged.

In regard to the eyes we have first to remark the peculiar expression of the countenance caused by the spasmodic closure of the orbicularis muscle, and the consequent contraction of the other muscles of the face. The head is bent forward upon the breast, and every attempt to raise it, is firmly resisted by the child. This peculiar physiognomy and the bent position of the head, are alone sufficient to characterize the disease, and enable us to decide upon its character the moment we see the patient.

They indicate the existence of what is technically termed photophobia scrofulosa; an intolerance of light arising from an irritation of the retina, which is probably sympathetic of derangement of the digestive organs, or which may arise from that general nervous irritability which attends the anæmic condition of the system, in which we find this class of subjects. This photophobia is attended with epiphora, and not unfrequently with fits of sneezing, and copious mucous discharges from the schniderian membrane, showing the sympathy which exists between these several parts, dependant in a great measure upon the distribution of the lachrymal nerve; which, after supplying the lachrymal gland is distributed to the orbicularis palpebrarum, and to the conjunctiva.

Photophobia to a greater or less extent is so constant in scrofulous ophthalmia, as to be considered an element of the disease. It does not appear to be owing to an inflammatory condition of the retina, or to a structural lesion in any part of the eye.

As an evidence of the soundness of the retina, we find that the perception of objects is as acute as in health, provided the light be so moderate as not to dazzle the eye; thus we often see children, who, during the whole day will lie with their heads buried in a pillow, or will seek a dark corner in a room, and scream if the least ray of light is admitted to them, who will brighten up in the evening, and play with their toys by candle light, with as much delight and with as keen vision as in health. It is also true that in those cases where the photophobia is most severe the external tissues of the organ are often but slightly injected, thus affording additional confirmation to the view.

It must be borne in mind, however, that generally speaking, the cornea presents specks or pimples, in those cases which exhibit the photophobia, and that when the pustules are large the photophobia is generally less severe than in those cases where they are small.

Upon the right cornea of this infant, near its centre, you observe a small ulcer, into which a fasciculus of vessels enters; this is the result of a pustule which has discharged itself. It is not uncommon to see five or six pustules, or ulcers, upon one eye, giving to the conjunctiva the appearance of being covered with an eruption. You are aware that this membrane is a sort of intermediate tissue between skin and true mucous membrane; and that it may be affected with diseases common to both of these structures. Hence the several varieties of scrofulous ophthalmia have been described under the terms of exanthematous, porriginous, pustular, phlyctenular and apthous ophthalmia; they are all, however, essentially of the same nature, and require a like treatment. In this case the co-existence of a vesicular eruption around the eyelids and upon the cheek, would indicate the eruptive character of the complaint.

Bear in mind, then, that this is an eruptive ophthalmia, that it affects the conjunctiva as a part of the skin, and not as a mucous surface, and that the pimples which characterize it, vary in size from an opaque spot, which is barely discernible to the size of a pin's head.

Beer, the German ophthalmologist, has laid much stress upon the distinction between the small and large pustules. The former are called phlyctenulæ, and the latter pustules. The phlyctenular variety is perhaps the most severe and obstinate, but I apprehend that the distinction is not of much practical importance.

The mode of termination of the eruption of scrofulous ophthalmia, is a matter of much importance to the vision of the patient. The most favourable method is by absorption, which often happens, if the case is mild, and if remedies are applied early. In many cases, as in that before us, the pustule bursts, and a little pit or ulcer appears, which under favourable circumstances heals rapidly, leaving behind a white speck, which, if the inflammation be subdued, and if the previous ulcer has been superficial, soon disappears. In less favourable cases the ulcer penetrates or burrows into the laminæ of the cornea, inducing excessive irritation for a long period, and at last heals with a permanent pearl colored cicatrix, which if it occur in front of the pupil, offers a serious and irremediable obstruction to the passage of light towards the retina. In a few instances the cornea is completely penetrated, the aqueous humour escapes, and the iris falls forward into the opening, to the edges of which it contracts adhesions—forming synechia anterior.

In the large proportion of cases, however, scrofulous ophthalmia runs its course without the occurrence of permanent opacity, or other serious structural lesion. The disease may persist with greater or less severity for months or even for years, one relapse may follow another, with the most obstinate regularity, until the friends of the little patient and the physician, have lost all patience and almost abandoned hope, and yet the eyes will come out of each attack, without serious injury. This fact has been repeatedly verified in the practice of this hospital. Patients discharged cured, after a long and tedious

attack, are returned upon us in a few weeks as bad as ever, and go through the same ordeal, to be again discharged and again returned. And yet we see them ultimately cured with good vision.

I have had under my care, for three years past, an intelligent and sprightly lad, who, during most of the time. has been the subject of scrofulous ophthalmia; he has had many successive crops of pustules and ulcers, and has repeatedly suffered for weeks together from the most distressing photophobia; and yet his eyes have escaped permanent opacity, and the sight is, at times, as perfect as natural.

There is another observation upon this point which it may be well to bear in mind, and that is, that in those cases where the photophobia is the most intense, the danger of permanent mischief by perforation of the cornea, &c., is, as a general rule, slight. This is probably owing to the fact previously stated, viz.; that the greatest intolerance of light occurs in cases where the corneal specks are small and numerous, and not single and deep seated.

The treatment in the case before us, has been both constitutional and local. The state of the secretions first claimed our attention. With a view of correcting these we directed the calomel and ipecac.

This was followed by a rapid improvement in the condition of the eyes; healthy discharges being restored, the way was prepared for tonics—the most efficient of which, in this disease, is sulph. quiniæ. Added to this the salt bath and frictions, with a view of establishing an active capillary circulation, and an improvement in the nutriment of the child, constitute the main features of the treatment. The effect, so far as the case has progressed, is very striking—the child having improved more under this treatment in a few days, then it did in as many weeks before. We shall hope, in a short time, to see the cure established.

There are many important practical considerations connected with the treatment of this complaint, which cannot now be entered into. The principle which should constantly be borne in mind is, that the disease has a constitutional origin, and that it is to be reached through the general system. Constant teazing of the eyes, by frequent efforts to examine them, or by making repeated applications to them, is very injurious. Confinement in a dark room, repeated leeching, and low diet, cannot, we think, be too strongly reprobated. On the other hand, exposure to the fresh air, nutritious diet, salt bathing—with alteratives and tonics, administered according to the indications present, constitute the general outline of the plan of treatment most approved and successful.

BIBLIOGRAPHICAL NOTICES.

Report of the Pennsylvania Hospital for the Insane, for the year 1842. By Thomas S. Kirkbride, M. D., Physician to the Institution. Philadelphia: 1843. 8vo. pp. 50.

This is a most interesting and instructive Report, and highly creditable to the source from whence it emanates. The Pennsylvania Hospital for the Insane is now completed, and fully organized.

"It is situated about two miles west of Philadelphia, on a fine farm of 111 acres of fertile and undulating land, upon which are several groves of fine forest trees, and streams of running water; its buildings, (with the pleasure ground, garden, and deer-park, comprising 41 acres,) are surrounded by a substantial stone wall, more than a mile long, and ten and a half feet high,—so admirably arranged, that while it is scarcely seen from the hospital—it affords that perfect quiet and privacy which could not otherwise be obtained, and without interfering with the views of the fine scenery and stirring objects beyond it. The hospital—imposing in appearance—fire-proof—and constructed in the most durable manner, contains 204 chambers for patients and their attendants,—numerous handsome and well furnished parlours,—spacious and extensive corridors,—abundant means for ventilation and warming the whole with heated air—a bountiful supply of water in every part, and numerous fixtures and arrangements, specially intended for the comfort and treatment of its inmates. To these may be added, the buildings necessary for conducting the farm—for the residence of several engaged on the premises, and a fine workshop for the employment of the patients."

All this, too, has been done from a fund especially created for the purpose.

Passing over many interesting details, for which we refer our readers to the Report itself, which show an increase in the number of admissions, and a decided gain in the number of cures and discharges, we shall pass to the subject of treatment. The importance of early treatment is strongly and properly urged. In addition to its propriety on the score of humanity, much is gained in economy, and individuals and communities are both largely benefitted. This statement is confirmed by reference to the register of the institution.

The avoidance of deception in the treatment of the insane is insisted on, and the inconveniences and impropriety of a contrary course fairly stated.

An outline of the treatment pursued in the Hospital is given, and is in strict accordance with that most generally adopted in the best institutions abroad and in our own country, and one calculated to inspire general confidence, and dissipate any prejudices which may exist on the part of the relatives of those who are thus afflicted.

The *moral* treatment, all important in cases of insanity, receives every attention in all its varieties and details. Free and systematic exercise in the open air, working at some trade, regular labour on the farm, &c.—all serve to calm nervous excitability, and break up a vicious train of thought.

"Next in importance to these means, and available for a much larger number of those who enter this institution, is regular daily exercise, by long walks in the country; always, if possible, for some definite object, as a view of fine scenery—the examination of some public work, or the inspection of a manufactory. Our proximity to the city of Philadelphia has afforded us an almost exhaustless variety in these objects to which those who were suitable, have resorted during the entire year. Almost every point of interest within four or five miles has been frequently visited,—not only preventing the monotony of the parlors and halls, but offering to our patients interesting objects and subjects for pleasant reflection afterwards. A great variety of public works, finished and in progress—numerous manufacturing establishments—the Mint—Girard College—the Water and Gas Works—the Institutions for the Blind, and for the Deaf and Dumb—the Navy Yard, and the Hospital in the city, are only a few among the points that have been

reached by our walking parties. Many of the exhibitions in the city—some lectures and concerts, and, occasionally, a public meeting, have also been attended.

"Many of the patients have full liberty to walk wherever their pleasure leads them, but an attendant generally accompanies a walking party. I do not recollect, except, perhaps, in one or two instances, the slightest violation of the confidence implied by these indulgences. There are some patients whose promises are as good as any guard that can be placed about them, and the violation of pledges among the insane, is much more rare than might be expected."

When the mental and physical condition of the patient forbids the excursions, exercise is taken within the inclosure, in a carriage, or on the pleasure railroad. The library is in constant demand, especially the periodical department.

"Writing—drawing—painting—the study of the mathematics, and other branches of learning, have tended to beguile many tedious hours. Several gentlemen have been usefully engaged in imparting instruction to others in the same ward, and two have been improved by giving regular lessons, for a short time, in one of the modern languages."

Several patients have been benefitted by associating with and instructing others. Games and music fill up many vacant hours, and are much enjoyed.

During the past summer a concert was given in the large hall of the centre building, and was attended by seventy patients, who were all delighted. In the last volume of this journal we gave an account of an interesting exhibition at Bicêtre, the insane hospital near Paris, whioh many of our readers will doubtless recollect. One of the leading pupils of the Conservatoire is a resident within its walls, and already much progress has been made in music.

On Christmas and New Year's eve parties were given, which passed off pleasantly and merrily. By the last report of the Hanwell Asylum, near London, the largest insane asylum in Great Britain, containing about a thousand patients, under the care of Dr. Conolly, we find that on New Year's eve nearly 300 female patients participated in an entertainment, and that among these were nineteen patients, who, under the old system, were always in restraint. The matron's birth-day was celebrated, too, by a general fete.

Restraint is nearly banished from the code of the institution, and during the last year no restraining apparatus has been used, except in two cases. The only indication recognized for its use is the benefit or safety of the patient. In all, or nearly all, the insane asylums of Great Britain it has been abandoned. Dr. Conolly, in the Report just alluded to, thus records his deliberate opinion, "at first encouraged, with much diffidence," that "the management of a large asylum is not only practicable without the application of bodily coercion to the patients, but that, after the total disuse of such method of control, the whole character of an asylum undergoes a gradual and beneficial change."

We regret that our limits do not enable us to do more justice to the admirable system pursued in this well-conducted institution. The perusal of the report will repay all who delight in the holy triumph of genuine philanthrophy, and all will be ready to exclaim in the language of Dr. Conolly, who has done, himself, so much towards the establishment of the system of non-restraint, that

"Insanity, thus treated, undergoes great if not unexpected modifications, and the wards of lunatic asylums no longer illustrate the harrowing description of their former state. Mania, not exasperated by severity, and melancholia, not deepened by the want of all ordinary consolations, lose the exaggerated character in which they were formerly beheld. Hope takes the place of fear; serenity is substituted for discontent, and the mind is left in a condition favorable to every impression likely to call forth salutary efforts. A chance is thus afforded, to every impaired mind, of recovery to an extent only limited by causes which no human art can remove."

On a Variety of False Aneurism. By Robert Liston, F. R. S., Surgeon to University College Hospital, Profesor of Clinical Surgery, &c., &c. (Read to the Royal Medical Chirurgical Society, March 8th, 1842. Printed at the author's expense, for distribution among the members.) London: 8vo. pp. 39.

This valuable and instructive paper was refused by the Controlling Council of the Royal Medical Chirurgical Society, and its author, in justice to himself, has published it at his own expense.

In a delicate boy, about nine years of age, after an attack of cough and fever, a small swelling formed below the right ear, which was fomented and poulticed, about two months before his admission into the hospital. A few days before his admission, there was a rapid increase in size, and its shape became irregular. When he entered the hospital, there was a tumour at the angle of the jaw of the right side. Backwards it extended nearly to the posterior border of the sterno-cleido-mastoid muscle—where it seemed to point—the upper part of which was pushed forwards; downwards, to within an inch of the clavicle; and forwards, to about half the length of the horizontal ramus of the lower jaw. Both respiration and deglutition were impeded by its projection into the mouth between the arches of the palate. There was indistinct fluctuation, and slight pulsation was detected immediately over the carotid artery; but on grasping the sides of the tumour, no pulsation could be discovered, nor could any be felt inside the mouth. Looking upon it as an abscess, Mr. Liston opened it with a bistoury; a gush of blood followed, of which about four ounces was lost in a few seconds. The wound was immediately closed by hare-lip pins and the twisted suture, and the hæmorrhage controlled. Next day the common carotid was tied, after a deep and difficult dissection, immediately above the innominata. The swelling decreased, and all appeared to do well until the thirteenth day, when secondary hæmorrhage occurred, and the boy died on the fifteenth day. On dissection, the tumour was found to contain a quantity of dark, grumous blood, external to which was a thin layer of organized lymph, which entirely lined the parietes of the cyst.

"A probe was passed down the internal carotid artery, and found to enter the cyst just opposite the division of the common carotid; this point was, however, obstructed, a mass of coagulable lymph almost entirely blocking up the entrance. The parietes of the tumour behind, were about a line or more in thickness, but on the outer side, on the aspect adjacent to the puncture, they were much thinner. The

appeared to be composed of three layers differing in character, but organically connected together. The outermost layer consisted of condensed cellular tissue having portions of the surrounding structures attached to or imbedded in it. The middle layer, which was not so evident on the outer side of the tumour, was very dense and opaque, so that it appeared like a distinct white line on a section of the parietes of the tumour. The innermost layer was soft and pulpy, semi-transparent, and of a pale dirty red colour; its inner aspect, forming the inner surface of the cyst, was smooth, and for the most part even; but in some points, and especially at the posterior part of the cyst, it presented a fasciculated appearance like the interior of the auricles of the heart, or of a fasciculated bladder, only not so well marked; it consisted, as I have said, of a flaky lymph-like substance throughout. Opposite the outer part of the tumour (where its parietes were thinnest) this substance was flocculent and broken, and contained patches of a bright yellow colour; here it was not distinctly laminated, and it adhered rather firmly to the middle layer of the cyst, but in other situations it was easily separable into laminæ, and was not so firmly adherent. The cavity of the cyst contained a quantity of grumous blood. The common carotid and the internal and external carotid were firmly attached to the front of the tumour. The opening by which the cyst had communicated with the artery had been about three lines wide and two and a half lines long, and was situated at the bifurcation of the common carotid. It was now completely closed by a firm clot, in which no perforation was visible, so that the probe which had been passed down the internal carotid into the cavity, must have been forced either on one side of this clot or through it. On the side next the vessel, the surface of the clot was concave, broken in the centre; but smooth towards the circumference, where it was closely adherent to the margin of the opening in the carotid artery. The opposite side of the clot was convex, and projected into the cavity of the cyst. On making a vertical section through the artery, the walls of the tumour, and the clot, the latter was seen to be composed of fibrinous laminæ. The edges of the opening in the vessel were found to be well defined and slightly everted; the external coat of the artery was distinctly traced, and afterwards dissected from the middle coat quite up to the margin of the opening, where it terminated abruptly, not being reflected on to the outer surface of the tumour. The coats of the vessel showed not the slightest dilatation at the part where it was connected with the tumour."

From the dissection, Mr. Liston thinks he has succeeded in establishing the fact that his original diagnosis was correct, and his proceeding justifiable. There can be little doubt, he believes, that the tumour was originally a scrofulous abscess developed in the lymphatic cervical ganglia, close to the great vessels, which it compressed; that finally ulceration of the arterial coat occurred, and that the cyst of a chronic abscess was thus converted into the sac of a false aneurism. This view gains additional strength from the fact of the extreme rarity of true aneurism in children—from the progress of the disease—its rapid development, and maturity, so to speak, in two months—its accumulation behind the posterior border of the sterno-mastoid muscle, the absence of disease or dilatation in the artery, and, finally, the appearance of the opening in the vessel—ragged, abrupt, well defined, and having all the appearance of recent ulceration.

Why the operation was delayed until the day following the accident, we cannot conceive. Good surgery we think would have demanded its immediate performance, and the deep and difficult dissection subsequently encountered, due doubtless, in a great measure, to infiltration, would have been avoided.

Mr. Liston has appended eight analogous cases. The first was one of Dr. Craigie's, where an extensive abscess of the tonsil opened into the sheath of the carotid vessels, and finally communicated with the common carotid, close to its bifurcation. In another case the femoral artery was opened. In a third, the common carotid was penetrated by a pharyngeal abscess.

The subject is highly important as a question of diagnosis, and will, it is hoped, receive additional elucidation by the same course of other surgeons, in the publication of similar cases.

Treatise on the Dental Art, founded on Actual Experience. Illustrated by two hundred and forty-one figures in Lithography, and forty-four Wood Cuts. By F. Maury, Dentist of the Royal Polytechnic School. *Translated from the French, with Notes and Additions.* By J. B. Savier, Doctor in Dental Surgery. Philadelphia: 1843, 8vo. pp. 285.

M. Maury stands well as a Dental Surgeon in Paris, and the present treatise sustains an excellent reputation. It is divided into three parts. The first part treats of dental anatomy, physiology, and pathology. It is to be regretted that in the sections which treat of the structure and developement of the teeth, no notice should be taken by the translator of the now received views of Retzius, Owen, Nasmyth and Goodsir. Part second embraces the important subjects of dental hygiene and therapeutics, and contains much of interest and usefulness. The third and last part is devoted to Mechanical Dentistry, or Odontotechny, and the mechanical means of remedying lesions of the palatine arch. This portion was defective in the original work, and the deficiency has been supplied from the Treatise of Dr. Solyman Brown. An alphabetical list of writers on Dental Science is appended.

"The translator has endeavoured to give a faithful interpretation of the views of his author, and would have preferred essaying no further than this, did not the many improvements made in this department of the curative art, within a few years past, render it necessary that he should omit or condense certain passages, that would in the present condition of the science be of no profit, and to append notes to others, to explain or refute whatever appeared ambiguous or erroneous."—*Preface p.* v.

To the practitioner of dentistry, and to the country physician, the present work will be a valuable acquisition. By an acquaintance with dental pathology and therapeutics, the latter might save much suffering, and in many instances subsequent permanent inconvenience.

JEFFERSON MEDICAL COLLEGE.

By the annual catalogue of this Institution for the session 1842–'43, we find the number of students to be two hundred and twenty-nine. At the public commencement on the 10th March, 1842, the degree of Doctor of Medicine was conferred on fifty-nine pupils.

RETROSPECT OF THE MEDICAL SCIENCES.

SUCCESSFUL OPERATION FOR STRANGULATED HERNIA, AT THE AGE OF 107!

We do not know that there is any record of the performance of a severe operation at the advanced age of 107, which has, however, been performed by Mr. Cæsar Hawkins, with success, in St. George's Hospital; and we apprehend there is no doubt of the patient's real age, as the certificate of his birth has been preserved by his friends, one of whom came with him to the hospital, and asserted that he had seen it. The patient is, moreover, well known as a musician, who had the honour, as he expresses it, of playing on the violin with his late Majesty, George the Fourth. His name is Rochard, a Frenchman, and his faculties are quite entire; he was able to walk into the ward, and within these few days was strong enough to walk from Bayswater to Charing Cross, and back again.

This man came to the hospital about one o'clock on Thursday last (Nov. 24th) with strangulated inguinal hernia, which had been fixed from, at least, the previous morning, and perhaps for a longer time, as no motion had passed for three or four days: the tumour was hard and tender, and vomiting had repeatedly taken place, but the countenance was cheerful, and the pulse unaffected.

While some other operations were being performed, Mr. Hawkins informed the students of the case having been admitted, and said that two attempts to reduce the hernia had been made before his admission; that the muscles being at his age completely relaxed, the only remedy likely to be useful was the application of ice, which he thought not unlikely to diminish the size of the tumour enough to enable it to recede, and that as the symptoms were not severe, and were generally slow in their progress at an advanced period of life, he would give him this chance, and see him again at five o'clock. When Mr. Hawkins came, however, at this period, he found that although there had been no sickness, yet the tumour was rather more tender, and therefore proceeded at once to the operation. The sac was very thick, and on opening it a mass of apparently transparent jelly protruded, which was a considerable quantity of recent lymph, distended with the serum, which filled the sac: the contents were a few inches of inflamed small intestine glued together and to the sac by lymph, which Mr. Hawkins was obliged, after dividing the stricture, to tear away from the bowel in order to reduce it. The case went on very well afterwards, and requires no particular notice;—evacuations were passed the next day, after an injection;—some slight tenderness of the abdomen was relieved by chamomile poultice, and by one or two doses of the calomel on the Saturday. The wound united entirely by the first intention, except where two ligatures had been applied to a divided vessel of the outside of the sac, which part was slightly opened by the probe: the last section was removed on Sunday, and on Wednesday, the 30th, we saw him sitting up in a chair. We may observe that nourishment was given him from the first, and a little wine the last day or two; he is rather weaker since the strangulation, but appears to be going on quite satisfactorily.

Dec. 7.—Continues to go on favourably in every respect; in fact, he may be regarded as having entirely recovered.—*Lond. Med. Gaz.* Dec. 9.

SUETTE MILIARE.

Five of the departments of France, in different parts of the kingdom, were visited during the past year with this pestiferous disease, the sweating-sickness of English authors, which caused such ravages in England in the fourteenth and fifteenth centuries, but which is now happily banished from this country, and is even rare among our neighbours. In one part of the department Dordogne, out of a population of 82,200 persons, 10,400 were attacked by the disease, of whom 800, or one in thirteen, perished. It was observed to rage mostly in marshy situations, and to be best treated in a manner similar to intermittent fever, viz., with quinine, and other tonics, taking particular care to interfere in no way with the march of the miliary eruption.—*Lond. Lan., from Gazette des Hopitaux.*

PHYSIOLOGY OF MENSTRUATION.

Dr. Raciborski has communicated to the French Academy of Sciences the following conclusions which he has drawn from his researches on this subject. Very intimate relations exist between the catamenia and the Graafian vesicles; menstruation begins at the period when these are fully developed, and ceases whon they are effete (detruits.) At each menstrual period one of these vesicles swells and projects from the surface of the ovary, from which it escapes by the rupture of its sac, usually about the end of the menstrual flow, without male congress or other sexual excitement. The vesicle which thus escapes has anatomical characters precisely similar to those of the corpus luteum supposed to be formed after conception. Diseases arrest the developement of the vesicles, and it is in this arrest that the true cause of amenorrhœa is in many cases to be sought; for the catamenial flow is the result of the sanguineous congestion of the internal generative organs, by which the developement of the vesicle in its highest degree is accompanied. The state of the ovaries is so intimately connected with the general health of an individual, that the internal appearance of these organs after death is said by Raciborski to be alone adequate to determine whether the patient has sunk under an acute or a chronic disease, or whether she has latterly menstruated regularly.

Phenomena analogous to those specified above as occurring in the human female at the menstrual period, are remarked also in animals during their rutting season. Among these the ovarian vesicles are found to increase gradually in size during the interval between the rutting epochs; and they ultimately escape altogether at these epochs without congress of the male. The spontaneous detachment of the human ovum at the end of the menstrual epoch naturally renders that period the most favourable for impregnation, and readily yields a reason for the fact that conception is most commonly referred to that epoch by pregnant women.

"Of 15 women (says Dr. R.) who specified accurately the period of their latest menstruation, as well as the dates of the connubial act, 5 evidently conceived from coitus taking place from two to four days previous to the period at which the catamenia was due. In 7, conception dated from coitus occurring two or three days after menstruation; in 2, it took place at the actual period of the catamenia; and

in one only so long as ten days after the latter had disappeared."

Considered with respect to her generative function, woman holds a place intermediate between rutting animals, which are capable of impregnation only at fixed seasons of the year, and those animals in which a coitus only is required to produce impregnation at any season. She, however, approaches much nearer in point of this analogy to the former class, her power of reproduction being infinitely the more active at her menstrual periods, to which the rutting time in brutes bears a strict physiological resemblance.—*Gaz. des Hopitaux.*

There is much that is new, rational, and striking in the above views, and we shall keep an eye upon any future observations that may be made by Dr. Raciborski on this subject.—*London Lancet*, January 28, 1843.

THE THEORY OF CELLS OPPOSED.

The Structure of Fibrinous Exudations, or False Membranes; Origin of Fibre.—It has been commonly supposed that fibrine exhibits an organized appearance only when it has coagulated in contact with the living textures. In his Notes and Appendix to "Gerber's Anatomy," Mr. Gulliver has depicted a distinct structure in fibrine which has set either within or out of the body, simply from *rest*; and a similar character is shown in a false membrane. He now gives several more figures to exhibit the analogy, in structure, of fibrine coagulated merely from rest, and fibrinous exudations resulting from *inflammation*. This structure is made up of fibrils of extreme delicacy and tenacity, and of corpuscles possessing the character of primary cells, or organic germs.

Of late years the origin of fibre, as well as of all other tissues, has been ascribed to the growth of cells; but these observations of Mr. Gulliver render it probable that cells are not essential to the formation of all textures, since it would appear that fibrils, which may be the primordial fibres of certain parts, are formed, in a few minutes, by the simple act of *coagulation* in fibrine.

M. Gerber (Gen. Anat., figs. 16—18,) has delineated what he terms the first, the second, and the complete stages of *fibrillation*, in the progress of organization in the fibrine composing coagulable lymph; but he does not say how much his drawings are magnified, though in some of them a very low power must have been employed. Others are sufficiently enlarged to show the cells from which he says the fibres are formed, and this is precisely the point on which Mr. Gulliver says that his observations are at issue with the views now generally entertained concerning the origin of fibres.

"All the organic tissues," says Dr. Schwann, "however different they may be, have one common principle of developement as their basis, viz., the formation of *cells*; that is to say, nature never unites molecules immediately into a fibre, a tube, and so forth, and she always, in the first instance, forms a round cell, or changes, when it is requisite, the cells into various primary tissues, as they present themselves in the adult state." (Wagner's Physiology, by Willis, p. 222.)

"How," continues Mr. Gulliver, "is the origin of the fibrils which I have depicted in so many varieties of fibrine to be reconciled with this doctrine? And what is the proof that these fibrils may not be the primordial fibres of animal textures? I could never see any satisfactory evidence that the fibrils of fibrine are *changed cells*; and, indeed, in many cases the fibrils are formed so *quickly* after coagulation, that their production, according to the views of the eminent physiologist just quoted, would hardly seem possible; nor have I been able to see that these fibrils arise from the interior of the blood-discs, like certain fibres delineated in the last ingenious researches of Dr. Barry." Such are the remarks of Mr. Gulliver in his "Contributions to Minute Anatomy," in the number of the "Lond. and Edinb. Philos. Magazine," for Oct. 1842.—*Lond. Lancet*, Jan. 14, 1843.

LACTUCARIUM.

A medical man belonging to the nation which has endeavoured to substitute the product of beet-root for the juice of the sugar-cane, has lately manifested considerable anxiety to introduce lactucarium into extensive use in pharmacy. It is, as may be known already, the concrete juice of several kinds of lettuce, and, in the opinion of M. Aubergier, ought to rival opium in medical practice, M. Aubergier announcing his hope that its employment in France will diminish the consumption of a production for which so high a price is paid "to foreigners." Lactucarium must be carefully distinguished from the watery extract of lettuce, in which it is contained only in a very small proportion, this proper juice of the plant being in an extremely small degree soluble in water, to which circumstance the great inferiority of narcotic power manifested by extract of lettuce is doubtless owing. Lactucarium is not present in all the species of *lactuca;* the *L. striata*, *acuminata*, *longata*, &c., yield only an insipid or sweetish juice, containing a great deal of mannite, but destitute of that principle on which the medicinal quality seems to depend. It is obtained in the greatest quantity from the *lactuca altissima*, which, by culture, may be made to reach ten feet in height, and from a few plantations of which gigantic vegetable, M. Aubergier calculates on obtaining a sufficient supply of the drug to expel the opium from the market of his country. The juice flows from a number of incisions made in the stalk and leaves at the time of inflorescence, and is at first of the colour and consistence of cream, but soon hardens, becoming successively of a yellow and a brown colour; and after having lost about 71 per cent. of its original weight, by evaporation, it presents itself covered with a crystalline efflorescence of mannite. Lactucarium contains a bitter principle, mannite, asparigin, a crystallisable matter (giving a green colour to the salts of iron,) a resin combined with potass, another resin, cerine, myricine, pectine, vegetable albumen, ulmate, oxalate, malate, nitrate, muriate and sulphate of potass, phosphate of lime and magnesia, oxides of iron and maganese, and silica. The bitter medicinal principle is a crystalline matter, which, as it is said to bear "the same relation to lactucarium that morphine does to opium," we might perhaps call *lactucine*. But, unlike morphine, it has no alkaline reaction. It is nearly insoluble in cold, but partly soluble in hot water, from which it is deposited, on cooling, in scales, resembling those of boracic acid. It dissolves in both strong and diluted alcohol, the more completely as the menstruum is more heated. It is insoluble in ether, and is decomposed, not sublimed, by dry heat. Its bitterness disappears when in combination with an alkali, but is restored on the addition of an acid that is capable of neutralising the latter. Lactucarium is re-

ported to possess all the sedative qualities of opium, with the advantage of causing neither constipation nor cerebral congestion.—*Ibid.*

SUDDEN DEATHS AT STRASBOURG.

The causes of death, as ascertained in twenty-six cases of sudden death at Strasbourg, by post-mortem examination, were as follows:—Apoplexy (cerebral hæmorrhage), 1; serous apoplexy, 1; cerebral congestion, 4; cerebral and pulmonary congestion, 1; hæmoptysis, 1; foreign bodies in the bronchi, 2; pulmonary congestion, 13; syncope, 1; perforation of the intestines, 2.—Total, 26.—*London Medical Journal.*

THE BLINDNESS CAUSED BY VITRIOL.

Dr. R. D. Thomson read a communication before the British Association, which was afterwards published in the proceedings of the Philosophical Society of Glasgow, on the nature and cure of blindness produced by the application of the oil of vitriol to the transparent cornea. The operation by which he hoped to remove the blindness was grounded on the following considerations:—"The basis of animal matter, according to the most recent researches of chemists, appears to be a substance termed protein, consisting of C_{40}, H_{31}, N_5, O_{12}, which can be readily prepared from albumen, fibrine, &c., by solution in caustic alkali, and precipitation by acetic acid. This substance appears to be a base, and combines with acids. When sulphuric acid is brought in contact with it a fine white substance is formed, which may be obtained in the state of a white powder by careful washing and drying. It may be conveniently produced by triturating the crystalline lens of the eye in a mortar, together with sulphuric acid. This acid is termed *sulpho-proteic*, and its formula is $Pr. + S O_3$."

The conjunctiva contains, as its base, protein, and if sulphuric acid is brought in contact with it, sulpho-proteic acid is formed, and opacity of the conjunctival layer covering the cornea is the result. Dr. R. D. Thomson found, by making a series of experiments upon the eyes of dead animals, that when sulphuric acid was applied to the cornea, a layer of sulpho-proteic acid was produced, which could be removed by means of a sharp-edged knife; and that, even after dissecting off the first layer, a second application of the acid will produce a new layer of sulpho-proteic acid, which may be excised or torn off in a similar manner; and in this way that the whole of the cornea may be successively divided into a series of layers, corresponding, in some degree, with the natural structure of that membrane. This method presents, in short, an excellent mode of demonstrating anatomically the layers of the cornea.

Success having thus far attended the experiments on the dead animals, Dr. Thomson determined to extend the principle to the living eye, for which purpose a dog was obtained, properly secured, and the sulphuric acid rubbed by means of a glass rod over the transparent cornea. White opacity was produced in a few seconds. The dog was left quietly for a few minutes, the eyelids being guarded from the influence of the acid, and when again examined, the cornea presented a white appearance, and was obviously quite opaque. The conjunctiva was then removed by means of a pair of scissors, assisted by a scalpel and forceps, and the denuded cornea was then scraped by means of the scalpel, until it appeared to be deprived of its white opacity. A slight degree of dulness remained, which appeared to have proceeded from the exudation on the surface of the cornea, for in a day or two the perfect transparency of the membrane was restored, and the animal lived for many weeks with complete vision of the eye. The dog belonged to Dr. Krauss, who was present at the experiment, and satisfied himself that vision was thoroughly restored in the eye which had been operated on.

Dr. R. D. Thomson recommends this operation to be performed, when attempted, immediately after the receipt of the injury.—*Provincial Medical Journal.*

Academy of Sciences, Paris. January 16, 1843.

CARBONIC ACID EXHALED DURING RESPIRATION.

M. Andral read a memoir on the quantity of carbonic acid exhaled during respiration. The following are the conclusions at which the author arrives:

1. The quantity of carbonic acid exhaled in a given time by the lungs, varies according to the age, sex, and constitution of the individual.

2. In both male and female this quantity varies with the age, and the variation is independent of the weight of the individual.

3. At every period of life, from eight years to advanced old age, the quantity of carbonic acid exhaled from the lungs of the male in a given time is, *cæteris paribus*, always more considerable than that furnished by the female. This difference is particularly well marked between the ages of sixteen and forty, during which period the male exhales nearly twice as much carbonic acid as the female.

4. In the male the quantity gradually increases from eight to thirty years, and it is increased suddenly and in a considerable degree at the period of puberty. After the age of thirty the quantity of carbonic acid begins to decline, and the decrement is greater in proportion as extreme old age approaches; so that, at the latter period, the quantity may fall to what it was at the age of ten years.

5. In the female the exhalation of carbonic acid follows the same law of increment during the period of childhood; but as soon as menstruation commences, the increase of this exhalation is suddenly arrested, and it remains stationary during the period over which the function of menstruation extends. When the woman ceases to menstruate, then the exhalation is suddenly and remarkably increased, and it then declines with old age as in the male.

6. During the whole period of pregnancy the exhalation of carbonic acid is raised to the standard peculiar to women at the critical period of life.

7. In both sexes and at all ages the quantity exhaled is great in proportion to the strength of the constitution and the development of the muscular system. This fact is confirmed by experiments of a different kind, showing that weakness of the constitution produced by disease is attended by diminution in the quantity of carbonic acid exhaled.

The considerable variations now noticed do not depend only, as might be thought, on the differences in the capacity of the chest.

IODIDE OF POTASSIUM IN ATONIC ULCERS.

The utility of the hydriodate of potass in secondary syphilis is pretty generally acknowledged. M. Lisfranc has employed it with success in ulcers of long standing, which have resisted other modes of treatment. A man, sixty-eight years of age, was admitted under his care at the Hôpital de la Pitié, who had for eight years had two obstinate atonic ulcers on his left leg; one of which, five inches in length,

extended round the limb for more than half of its circumference; the other was about two inches in diameter. The only topical application used was simple cerate and charpie, but M. Lisfranc prescribed a scruple of the iodide of potassium daily, which quantity he subsequently increased to six grains every six hours. At the end of six weeks the health of the patient had become greatly improved; his flesh generally had acquired firmness; his face was ruddy; and he had even gained fat. The smaller of the two ulcers had completely disappeared in twenty-five days, and scarcely one-tenth of the larger ulcer remained to be healed. In two months the man left the hospital perfectly cured.—*London Lancet*. Jan. 7, 1843.

Lactate of Quinine, the claims of which to the notice of practitioners appear to have been known some time ago, has somewhat recently found an advocate in Prince Lucien Bonaparte. Among its advantages over the sulphate, enumerated by the prince, the chief seems to be its greater solubility.—*Ibid.*

VARICOCELE.

M. Vidal de Cassis has published in the "Annales de Chirurgie Francaise," a communication on the radical cure of varicocele by a modified application of the ligature, and on its applicability to the treatment of tumours of the testicle. Although, in general, opposed to operations for the cure of varicosed veins, on account of the great risk of the occurrence of fatal phlebitis, the uncertainty of the results, and the frequency of relapse, M. Vidal did not feel the same repugnance to operations for the cure of variocele, which he regards as a purely local affection. His opinion, on the propriety of operating for the removal of the last-named infirmity, has been considerably strengthened of late, and he has, himself, already operated thirty times.

When varicocele occurs in the persons of old men, who have been long afflicted therewith, the operation should not be performed; as the inconveniences to which the patient is subjected are not sufficient to warrant the proceeding, more especially as at an advanced age it could scarcely be undertaken without involving some risk of a fatal termination. M. Vidal, however, has seen it occur before the fifteenth year, and says that he has very rarely met with a case where it commenced after the thirtieth. Among the reasons alleged by him for operating on this variety of varix, when it occurs in young persons, are: the inconvenience and pain which it causes, the impediments it offers to exercise or moderate exertion, the sterility it induces, and the absence of the varicose diathesis. Patients affected with varicocele, as might be anticipated from their age, are rarely subject to a varicose condition of the veins of the legs, to hæmorrhoids, or any other disease connected with varix. He considers varicocele, as has been already remarked, to be essentially a local affection, arising from excessive exercise of the genital organs, either with women, or onanism, or by other excitement of the testicles. He narrates a case of varicocele following orchitis, in the person of a young man much addicted to women, in illustration of his position: the epididymis of the left side was enlarged and indurated, consequent on a gonorrhœa and orchitis, and the veins of that side were varicose. The diseased state of the veins followed so rapidly the supervention of inflammation of the testicle, that M. Vidal considers himself entitled to call it an acute affection, in opposition to the same disease occurring in old men, which he terms chronic. Varicocele dependent on the causes above mentioned, being essentially local, is not connected with the varicose diathesis to which varix, occurring in another part of the body, may be referred; that is to say, the latter variety is dependent on several causes, seated sometimes at a distance from the part affected.

M. Reynaud, of Toulon, whose mode of operating, somewhat modified, has been adopted by M. Vidal de Cassis, proceeded as follows: He seized the spermatic cord of the diseased side with both hands; he sought for, recognised, separated, and pushed inwards the vas deferens towards the root of the penis; he distinguished it from the vessels and nerves of the testicle by its hardness; then pinching up the scrotum between the thumb and forefinger of the left hand, so as to embrace the spermatic vessels and nerves, he traverses the base of it with a curved needle, armed with a waxed thread. He then releases his hold of the scrotum, brings the two ends of the thread together, and then ties over them a thick but short cylinder of linen, previously placed between the thread and the skin. The ligature must be so tied that it may be loosed or unfastened, in case it should become necessary to diminish the compression exerted on the parts. The only dressing required is the application of lint spread with simple cerate, and a compress. No bandage is necessary. A slight degree of inflammation generally arises, but it lasts but a short time, and two or three days after the operation the ligature may be tightened over a fresh cylinder. If, however, the inflammation be sufficiently extensive and the pain severe, when the ligature is untied, it must not be re-secured until the inflammation has been removed by emollient applications.

The tightening of the ligature, from time to time, causes the gradual division of the soft parts, which cicatrise gradually from the part where the needle entered; by the fifteenth or eighteenth day the spermatic nerves and vessels are cut through, and there remains only the skin undivided; M. Reynaud, then, not to leave a doubt as to the perfect section and obliteration of the vessels of the cord, passes a grooved director, and divides the remaining integument with the bistoury. The wound which results from this is soon healed, and the patients are generally discharged cured in twenty-five days after the operation.

The modifications introduced by M. Vidal, consist in the substitution of a piece of silver wire for the ligature instead of the waxed thread, by which he is enabled to tighten or relax the constriction without undoing the knot, by merely passing the end of a director between the wire and the linen cylinder, and twisting or untwisting it as occasion may require, and the use of a straight instead of a curved needle for the application of the ligature. He also converts the operation into a subcutaneous one by not dividing the integument, when by drawing a little on the ends of the wire, he finds the vessels are divided. If he believes that there is danger of a relapse, he passes two ligatures, about an inch distant from each other, the first of which only is knotted and tightened, the other, placed nearer the testicle, serves as a *ligature d'attente*. If the first ligature produce sufficient inflammation and swelling of the varicose mass below, the other ligature is not tightened, and if the inflammation run very high, it may be removed, and the first one relaxed, but it is as well to retain the *fil d'attente* as long as possible; for if, after the veins have been cut through, and the induration has disappeared, a varicose condition of the cord still continues, or there should be a tendency to relapse, the

second ligature may be tightened, and a radical cure be effected.

The same operation has been applied by M. Vidal de Cassis in two cases, to the treatment of varicocele, attended with enlargement of the testicle, and in both instances with complete success. He proposes further to extend its application to the treatment of incurable tumours of the testicle and of other parts, which may be in an analogous condition. In fact, he says, if the ligature does not effect a definitive cure, it may arrest the disease, prevent its ulterior development, and if it be malignant, put an obstacle to its propagation at a distance. At all events it may be preparatory to extirpation, and afford a better chance of success for the latter operation. In the latter case, the spermatic veins alone are not to be tied, but the entire cord must be ligatured; an operation, however, only to be performed in cases where the testicle is much diseased, as in true scirrhus and tubercular degeneration.—*Prov. Med. Journ, Jan.* 24, 1843.

Means of rendering the Preservation and Use of the Nitrate of Silver more certain and more easy. By PROFESSOR DUMERIL.

The little cylinders of lunar caustic are generally kept in shops, in a bottle well corked, and separated from each other by linseed, or coriander seeds, to preserve them from the action of the light, air, and moisture. As these cylinders of melted nitrate of silver have not been always moulded at the same degree of fusion, when too much acid has remained in the material, it crystallizes in the mould, by radiating striæ, and unfortunately the cylinders are then friable, very brittle, and necessarily difficult to fix between the sides of a porte-crayon. They must be cut in order to introduce them into the metallic tube, and in doing this they are often broken, and if they are too thin, they break on the least effort. In all cases it is not easy to cut or scrape them, to adapt them to the surfaces on which we wish the caustic to act, whether it be on a single point, or on a line; a flat surface, or the whole extent of a large ulcer. By the little improvement I am about to suggest, I obtain all these advantages. It consists in melting at the fire, or dissolving in pure alcohol, good sealing-wax used by engravers, which contains a good deal of gum lac; holding in a forceps the cylinder of nitrate of silver, I dip it in this solution. The material of the lac applies itself perfectly round the nitrate of silver, and covers it entirely; it adheres to it on all sides, and very strongly; as a varnish unalterable by the air, and whose surface is very smooth, and impenetrable to moisture.

The nitrate of silver, so prepared, can be touched with impunity: it does not stain the fingers; it is very strong, in consequence of its envelope. It resists the pressure of the porte-crayon, which it no longer corrodes. By scraping off some of the covering, as much of the surface may be exposed as is thought necessary.

The great advantage in this mode of preparation is, that I can fix the caustic with firmness, and carry or insinuate it without danger, to any sufficient distance down the throat, or the other cavities.—*Dublin Journal*, 1843, *from Gaz. Med.*

DIFFERENCE OF THE PUS-LIKE GLOBULES OF THE BLOOD IN HEALTH FROM THOSE IN DISEASE.

Although the pus-like globules which are found in the blood of patients who are affected with various severe inflammatory and suppurative diseases, are very like the pale globules now so well known as belonging to healthy blood, it often happens that the former globules differ manifestly from the latter. In inflammatory affections the pus-like globules of the blood are generally rather larger, more irregular in size and form, and sometimes more opake, than the pale globules of healthy blood; and the globules occurring in disease are frequently clustered together very remarkably. They are sometimes of a reddish colour, including from one to four blood-discs, rarely five or six, in a very delicate and pale envelope. Besides, in the pus-like globules of the blood of patients labouring under inflammatory disease, the molecules composing the nucleus are mostly surrounded, and often are more or less separated, by a quantity of minutely granular matter, which is either generally less obvious, or even absent, in the pale globules of healthy blood. In a case of great swelling, with purulent deposit, in the leg of a mare, the pus-like globules presented an average diameter of $\frac{1}{2666}$ th of an inch, and were nearly as numerous as the red dics; while in the blood of a healthy mare, examined at the same time, for comparison, the pus-like globules were by no means so plentiful, and they almost all ranged between $\frac{1}{3500}$ th and $\frac{1}{2900}$ th of an inch.—*Mr. Gulliver, Lond. and Edin. Phil. Mag.*, Sept. 1842.

MODE OF FORMATION OF RED GLOBULES.

Dr. REMAK, of Berlin, has been able to distinguish these bodies in the blood of an embryo chick in the third week of artificial incubation, as well as in the embryo pig an inch in length, in which last he finds they are from four to six times as large as in the full grown animal. In the chick they are of different shapes,—rounded, pyriform, and pediculated, or elongated, and with a nucleus at either end, united by a minute prolongation. This last condition has given rise to a notion that the reproduction of the globules takes place by a procedure analogous to fissiparous generation. Dr. Remak had recourse to the following experiment to ascertain in what way the red globules were reproduced, and the facts that he observed throw some light on the process:—A horse was bled for several successive days, as much as 30lbs. of blood being taken from him on the first day. At that time the red globules were very abundant, while only a few colourless globules were present. Next day the latter were numerous, and mostly enlarged, having in their interior one or more globules of a pale-red colour surrounded by small granules. On the succeeding days these globules deepened in colour, and, correspondingly, the accompanying granules disappeared. On the fourth day it became evident that red globules, similar to those existing in the blood in an independent state, had been formed within the larger colourless corpuscules, and set free by the bursting and disappearance of the latter. Similar phenomena presented themselves in similar observations on the blood of the frog and the human subject. In man, between the fourth and eighth day, after the loss of a large quantity of blood, and notwithstanding the presence of typhoid and inflammatory diseases, the reproduction of the red globules goes on in the same way, as proved by the discovery of a proportionable quantity of the outer films of the colourless globules in the clot.—*Lond. Lancet, from Med. Zeitung*, No. 27.